

RECENT LITERATURE.

The A. O. U. Check-List of North American Birds. Third Edition.¹—The third edition of the A. O. U. Check-List was authorized at the stated meeting of the Union held in November, 1905, when also a committee was appointed to consider the A. O. U. Code of Nomenclature, and report what changes in the Code, if any, seemed necessary to better adapt it to present day needs. The Code committee later recommended a number of modifications, mainly in the nature of amplification and explicitness of statement. The chief modification was the adoption *en bloc* of Rule 30 of the International Code of Zoölogical Nomenclature, as revised at the Seventh Congress held at Boston in 1907, in relation to the determination of types of genera. This rule was virtually the same in effect as the rules on this subject in the original A. O. U. Code of 1886, and hence served to confirm the type designations of the first and second editions of the Check-List, with only the two or three exceptions subject to a special provision. As a result of the committee's work, a revised edition of the Code was published in July, 1908.

The committee in charge of the preparation of the new edition of the Check-List devoted nearly four years to the work, notwithstanding the labor was divided among several subcommittees, to whom great assistance was rendered by other members of the Union. Every detail of nomenclature, the verification of references, and the geographical distribution of the species and subspecies received the most thorough consideration, the time and labor expended on this new edition probably greatly exceeding that given to the preparation of both the preceding editions and their supplements.

The new edition differs from previous editions in several important particulars, both typographically and otherwise, as follows:

(1) Subspecies are distinguished from species by having all the matter relating to them printed in smaller type than that pertaining to species.

(2) In the case of composite or polytypic species, the range of the group as a whole is briefly given, under the name of the species, which serves as a caption for the group, the North American subspecies of the group following in due sequence, with their respective ranges stated in detail. In

¹ Check-List [of] North American Birds [Prepared by a Committee] of the [American Ornithologists' Union] Third edition (revised) [—] Zoölogical Nomenclature is a means, not an end, of Zoölogical Science [—] New York [American Ornithologist's Union] 1910—8vo, pp. 1-430, and 2 maps of North America, one colored, to show the life zones, the other plain, giving localities. August, 1910. \$2.50.

American Ornithologists' Union [Abridged] Check-List [of] North American Birds [—] From the [Third Edition] [—] New York [American Ornithologists' Union] 1910—Pocket Edition, 3½ by 6 inches, pp. 77, printed only on the right hand page. August, 1910. 25 cents; 10 copies, \$2.00.

these the general range is first indicated, then the breeding range and the winter range, and finally the localities of its casual or accidental occurrence.

(3) The species are not numbered, and subspecies are designated by letters. The numeration of the previous editions is given at the right of the English name, in brackets, as a concordance. The old enumeration is thus available for use.

(4) The concordance to previous Check-Lists (those of Baird, Coues, and Ridgway) is omitted.

(5) The secondary references under species and subspecies are also omitted, only the reference to the place of original description being given.

(6) This reference is followed by a statement (in parenthesis) of the type locality of the species or subspecies, usually as given by the original author, but in many cases in more definite and exact terms.

(7) The type species of each genus and subgenus is not only given as before, but the manner in which it came to be the type is also stated, this being an item of information of the utmost interest to the nomenclator.

(8) The generic and specific names are marked for accent.

(9) Two maps are included, the first, bound in as a frontispiece, is printed in color to show the life zones of North America; the other, uncolored, and placed at the beginning of the systematic list, gives the localities especially mentioned in the Check-List, particularly type localities and others zoologically of historic interest, many of which are not indicated on modern maps.

(10) A further departure from previous editions is the elimination of all the species resting solely on the unconfirmed records of Giraud's 'Birds of Texas,' and of a few others included on early unsatisfactory records still unconfirmed, and which, in the light of present knowledge, seem highly improbable.

The geographical boundaries of the Check-List remain as heretofore, that is, they include Greenland and the peninsula of Lower California. The classification is also unchanged — a feature that may evoke more or less criticism in certain quarters. The preface, however, thus states the case: "It was at first the intention of the Committee to modernize the sequence of the groups. The fact, however, that the present systems of classification in ornithology are admittedly tentative, and differ widely among themselves, it seemed best, from the standpoint of convenience, to continue the old Check-List system unchanged, since the users of the Check-List are familiar with the present order of arrangement and would regret the annoyance that a radical change from it would cause. In deference to this known widespread preference, the old order of arrangement has been continued." Preference is expressed, however, for the well known Gadow system, with modifications, an abstract of which system is given, with the Check-List equivalents added in brackets.

For a similar reason it was decided to refrain from giving a new consecutive numbering to the species, since it would necessarily differ widely from that of previous editions, owing to the interpolation of thirty-four

species and the elimination of a considerable number of others since the publication of the first edition twenty-four years ago.

The first edition of the American Ornithologists' Union Check-List of North American birds (1886) contained 768 species, serially numbered, and 183 subspecies, indicated by the letters *a, b, c*, etc., placed after the species number, which was repeated for each subspecies. The number of forms recognized was 951. Of this number 82 species were indicated (by the species number being inclosed in brackets) as of merely casual or accidental occurrence, leaving only 869 forms that were to be regarded as properly North American birds.

The second edition (1895), published nine years after the first, contained 799 species and 269 subspecies, making a total of 1,068 forms, a net gain of 31 species and 86 subspecies, or 117 forms.

The third edition (August, 1910), appearing fifteen years after the second, contains 802 species and 394 subspecies — a total of 1,196 forms (1,200 in round numbers). This is a net gain over the second edition of 3 species and 125 subspecies.

A comparison of the third edition with the first shows that in the twenty-four year interval the net gain has been 34 species and 211 subspecies.

- Many more than these numbers have been added, but a large number of species and subspecies have also been eliminated. Thus in the second edition, while 38 species and 83 subspecies were added, 7 species and 3 subspecies included in the first edition were either eliminated or changed in status. In the third edition, there were numerous changes of a similar character.

It is difficult to summarize all of the varied and numerous changes in respect to species and subspecies that have been made in the gradual evolution of the Check-List from the first edition to the third. An approximate analysis is attempted in the following table, with a deep consciousness of the liability of there being in it a small percentage of error.

First Edition.

Number of species	768
“ “ subspecies	183
Total number of forms	951

Second Edition.

Number of species	799
“ “ subspecies	269
Total number of forms	1068
Species omitted	7
“ added	38
“ net increase	31
Subspecies added	90
“ omitted	4
“ net increase	86

Third Edition.

Number of species	802
“ “ subspecies	394
Total number of forms	1196
Species omitted	20
“ added	23
“ net increase	3
Subspecies added	148
“ omitted	14
“ raised to species	4
“ net gain	130

General Summary.

Total net increase, species	34
“ “ “ subspecies	211
Total species added	83
Species removed (as synonyms, 5; as extralimital, 15; as hybrids, 3)	23
Species reduced to subspecies	26
Total subspecies added	247
Subspecies raised to species	5
“ reduced to synonyms	31
Total species of casual or accidental occurrence (numbers in brackets)	119
Brackets removed from	17
Bracketed species eliminated	14
“ “ remaining in 3d ed.	88

The most obtrusive changes, as well as the most unwelcome, in the several editions of the Check-List, are those of nomenclature. They are due to a better understanding of the status and relations of the elements that enter into the Check-list, from subspecies to families, due to increase of material and more thorough acquaintance with the literature of the subject, and to the strict enforcement of currently accepted rules of nomenclature. These may be tabulated with approximate accuracy as follows:

Family names changed	5
Subfamilies raised to families	10
Subfamily names added	3
Generic names changed	60
Subgenera raised to genera	34
Genera added	8
Subgenera added	8
Specific names changed	52
Subspecific names changed	38

The change of method in the treatment of composite or polytypic species introduced in the third edition has added greatly to the number of trinomial names. In former editions all specific groups which were represented in the Check-List fauna by only a single form were designated by binomial names, the additional subspecies by trinomial. Thus *Uria troille* of former editions is now *Uria troille troille*, to render the name distinctive of the particular form of the group referred to, while the species name stands as a heading or caption for its subspecies as a group, whether, as in other cases, the group consists of two subspecies or more. This method is also applied to composite species represented in the Check-List by a single subspecies, as in the case of *Colymbus nigricollis*, where the earliest-named, or "typical," subspecies is extralimital; but it is not introduced where the group is represented by a single subspecies which happened to be the first-described form of the group,¹ as in cases like *Spinus pinus*, etc. The introduction of this method has increased the number of trinomials over previous editions by the addition of 232. In 65 of these cases the 'type' subspecies is "North American" (in the sense of the Check-List), and in 65 cases extralimital. (In the preceding table, under subspecies, these 232 trinomials are not included.)

Of the 802 species in the third edition, 611 are monotypic and 191 polytypic, as regards their representation in the Check-List. Of the 191 polytypic species, 102 have each only a single additional subspecies, 47 have 2 each, 15 have 3 each, and 27 have 4 or more each. The following have the highest numbers: *Lagopus rupestris*, 6; *Otus asio*, 8; *Dryobates villosus*, 7; *D. pubescens*, 5; *Otocoris alpestris*, 13; *Agelaius phoeniceus*, 7; *Junco hyemalis*, 9; *Melospiza melodia*, 19; *Passerella iliaca*, 7.

The relationships and relative importance of the more than 600 subspecies included in the Check-List is clearly set forth through the use of the trinomial system, since if all the forms which are considered as entitled to a place in the list were given binomial names, as some ornithologists insist is the only satisfactory way of recording them, slightly differentiated intergrading forms, that even the expert finds difficulty in distinguishing, would have the same apparent value as wholly isolated and strongly characterized congeneric species. While it may be difficult for even a committee of experts always to determine with exactness the proper status of certain obscurely differentiated forms, their errors are not likely to be numerous, and are far more than offset by the guidance afforded to the uninitiated in the multitude of other cases that can be determined beyond reasonable doubt. The relatively few changes that have been made in the Check-List in the status of species and subspecies have been mostly in

¹ This is an inconsistency, due perhaps to oversight, as this innovation was not adopted till the first half of the Check-List was already in galley proof. In cases like *Spinus pinus* the name should be *Spinus pinus pinus*, to indicate unequivocally that the form referred to is only the typical race and does not include *Spinus pinus macropterus*; and similarly in all parallel cases.

cases where material for their investigation was in the first instance scanty and later became more adequate.

It is of interest to note that most of the species added to the Check-List since the publication of the first edition have been either waifs and strays from extralimital regions, or insular forms from the Aleutian Islands, or species recently described from the peninsula of Lower California and its contiguous islands. By far the greatest part belong to the category of accidental species pertaining properly to the fauna of Europe and Asia but occurring casually in Greenland and Alaska, or West Indian and Mexican species of casual occurrence within the Check-List limits, and a few that have been found to range slightly beyond the northern border of Mexico. Nearly one-half of these additions are water birds, as petrels (*Tubinares*), ducks and geese (*Lamellirostres*), and shore birds (*Limicolæ*); several others are West Indian pigeons and swallows.

The species of merely casual or accidental occurrence within the Check-List limits (indicated by the enclosure of the number designating them in brackets in the first and second editions, and as bracketed insertions in the third edition) form, owing to their large number, a rather prominent feature of the list, the total (including all the editions) being 119. Of these 88 are still retained, the others proving to have been improperly included. This is only six more than the number contained in the first edition, but the constituency of the bracketed list has been much changed by additions and eliminations. This feature, in fact, serves as an indication of progress in our knowledge of North American birds. Thus it has been found proper to remove the brackets in the case of 17 species given as bracketed species in the first and second editions, these species, though rare, having proved to be of sufficiently frequent occurrence to be regarded as proper elements of the Check-List fauna. At the same time 14 others have been wholly eliminated as being without a satisfactory record of occurrence within the limits of the Check-List, while 28 others have been added on the basis of authentic records of capture.

The Hypothetical List also shows changes of similar character, it numbering 26 species in the first edition, 27 in the second, and 20 in the third, notwithstanding the addition of 5 species in this edition. Of the total of 34 species referred to it, 3 have been transferred to the main list and 11 eliminated as having not even a hypothetical claim to recognition as species of the Check-List area.

The List of Fossil Birds has nearly doubled since the first edition, has been reclassified, and otherwise made more satisfactory and useful. From 46 species in the first edition the list increased to 64 in the second, and to 72 in the third, which comprise all of the known fossil birds of North America to the close of the year 1909.

It would be out of place for the present writer to dilate on the merits of the 'New Check-List,' which will doubtless be welcomed as bringing together in convenient order the numerous additions and nomenclatorial changes previously scattered through eight Check-List Supplements.

In the final revision of the manuscript for the press a few changes were made subsequent to the publication of the last (Fifteenth) supplement, consisting in the addition of one species and one subspecies, the elimination of one or two species and subspecies (among others the Harpy Eagle), the reduction of one species to a subspecies, and one change of nomenclature.¹

A word should be said, however, in reference to the revision of the ranges of the species and subspecies. This has entailed a vast amount of original research, not contemplated by the committee at the beginning of its work, the revision having for its basis not only all published records but the data collected during the last twenty-five years by the Bureau of Biological Survey, for the most part unpublished. The committee, and all who may make use of the Check-List, owe an immense debt of gratitude to the Chief of the Survey and his assistants for the vast amount of labor they have expended in perfecting this important feature of the Check-List, and for use of the map showing the life zones of North America, revised to date.— J. A. A.

Wayne's 'Birds of South Carolina.'²—Through thirty years of almost continuous observation in the vicinity of Charleston, the author of the present work has acquired a knowledge of the ornithology of the coast region of South Carolina that makes the field peculiarly his own. Notes from his pen regarding the birds of this region have appeared in 'The Auk' and other ornithological journals with increasing frequency since about 1886, adding some thirty species to the known avifauna of South Carolina, correcting numerous erroneous records for the State, and greatly increasing our knowledge of the life histories of many of the rarer species. Mr. Wayne began serious work in ornithology at the time of Mr. William Brewster's visits to the vicinity of Charleston in 1883, 1884, and 1885, where they together rediscovered Swainson's Warbler, and made known its nest and eggs and breeding habits. As their relations have since been more or less intimate it is very appropriate that the present volume should be dedicated to Mr. Brewster.

The author tells us that his original plan was to treat only the birds of the coast region, but through the solicitation of ornithological friends he has added "an annotated list of additional species of the Piedmont and Alpine regions, not found in the coast region." The book relates mainly,

¹ Added: (1) *Falco tinnunculus*, (2) *Tangavius aeneus aeneus*; added to Hypothetical List: (1) *Anas rubripes tristis*, (2) *Pisobia ruficollis*. Omitted: (1) *Sterna fuscata crissalis*, (2) *Ægialitis metoda circumcincta*, (3) *Thrassaëtos harpyia*, (4) *Colaptes chrysoides brunnescens*. Reduced to subspecies: (1) *Macrorhamphus scolopaceus*. Changes in nomenclature: *Falco dominicensis* changed to *Falco sparveriioides*, as in first edition.

² Contributions from the Charleston Museum | Edited by Paul M. Rea, Director | I | Birds | of | South Carolina | By Arthur Trezevant Wayne | Honorary Curator of Birds in the Charleston Museum | With an Introduction by the Editor |—| Charleston, S. C. | 1910—Svo, pp. xxi +254. Paper, \$2.75; cloth, \$3.25.